

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0039209; AI 42590; PER20060001** to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. THE APPLICANT IS:** North Monroe Subdivision Sewerage District #1
P.O. Box 4469
Monroe, LA 71211
- II. PREPARED BY:** Ronda Burtch
- DATE PREPARED:** November 13, 2006
- III. PERMIT ACTION:** reissue LPDES permit LA0039209, AI 42590; PER20060001
- LPDES application received: October 10, 2006
- LPDES permit issued: June 1, 2000
LPDES permit expired: May 31, 2006

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the North Monroe Subdivision Sewerage District #1.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located 1/4 mile south of the intersection of Finks Hideaway Road and US Highway 165 in Monroe, Ouachita Parish.
- D. The treatment facility consists of a primary settling pond, followed by an aeration basin, into a rock reed filter, then into another settling basin, through ultraviolet disinfection, followed by a final rock filter.

E. Outfall 001

Discharge Location: Latitude 32° 33' 47" North
Longitude 92° 4' 24" West

Description: treated sanitary wastewater

Design Capacity: 0.20 MGD

Type of Flow Measurement which the facility is currently using:

Totalizing Meter

Please note that if the facility grows to a discharge beyond the design capacity of the facility, additional sewage treatment may be required with prior approval of the facility's plans by the Louisiana Department of Health and Hospitals and notification must be submitted to the LDEQ. Also, if the expected flow reaches or exceeds the design capacity of the facility, a permit modification may be required.

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V. RECEIVING WATERS:

The discharge is into US highway 165 ditch, thence into Chauvin Bayou, thence into the Ouachita River in segment 080102 of the Ouachita River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 080102 of the Ouachita River Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 080102	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Not Supported	Not Supported	Not Supported	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 080102 of the Ouachita River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 080102 of the Ouachita River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

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Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Ronda Burtch
 Permits Division
 Department of Environmental Quality
 Office of Environmental Services
 P. O. Box 4313
 Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 080102, Bayou Chauvin, is not listed on LDEQ's Final 2004 303(d) List as impaired. However, subsegment 080102 was previously listed as impaired for organic enrichment/low DO, Nutrients (NITRATE + NITRITE AS N), pathogen indicators, suspended solids/turbidity/siltation, noxious aquatic plants, and phosphorus, for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for subsegment 080102:

Bayou Chauvin TMDL for Fecal Coliform

The Louisiana Water Quality Regulations require permitted point source discharges of treated sanitary wastewater to maintain a fecal coliform count of 200 cfu/100 mL in their effluent, i.e., they must meet the standard at end-of-pipe. Therefore, there will be no change in the permit requirements based upon a WLA resulting from this TMDL.

Total Maximum Daily Load (TMDL) for TSS, Turbidity, and Siltation for 13 Subsegments in the Ouachita River Basin

As per TMDL, "Point sources do not represent a significant source of TSS as defined in this TMDL. Because an enforceable mechanism is in place to protect from discharges of organic suspended solids no TMDL is required for these materials." Therefore, TSS limits will remain as previously permitted.

Bayou Chauvin TMDL for Noxious Aquatic Plants

Per the TMDL, "The wasteload allocation for noxious aquatic plants is zero. No point sources of noxious aquatic plants are known to exist." Therefore, no limitations for noxious aquatic plants will be required of this facility.

Bayou Chauvin Watershed TMDL for Biochemical Oxygen-Demanding Substances

Per the TMDL, "Bayou Chauvin is a man-made suburban canal for most of its length and is dominated by point source discharges and algae. It is projected that the water quality standard for dissolved oxygen of 5.0 mg/l can be maintained during the summer critical season with an 80-100% reduction of man-made nonpoint loading plus limitations on point source discharges." Therefore, effluent limitations will be permitted as follows:

10 mg/l CBOD₅ / 15 mg/l TSS / 5 mg/l NH₃-N / 5 mg/l DO

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Interim Effluent Limits:**OUTFALL 001**

This facility will be required to meet a DO limitation for the first time. An Interim period shall be given in order to give the facility sufficient time to take the necessary steps required to ensure compliance with the DO limitations.

Interim Effluent Limits shall become effective on the effective date of the permit and expire two years from the effective date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	17	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this size.
TSS	25	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	8	5 mg/l	10 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this size.
Dissolved Oxygen		Report	N/A	Limits are set in accordance with the <i>Bayou Chauvin Watershed TMDL for Biochemical Oxygen-Demanding Substances and Nutrients</i> .

****This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.**

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Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

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Final Effluent Limits:

OUTFALL 001

Final effluent limits shall become effective two years from the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	17	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this size.
TSS	25	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	8	5 mg/l	10 mg/l	Limits are set in accordance with the Statewide Sanitary Effluent Limitations Policy (SSELP) for facilities of this size.
Dissolved Oxygen		5 mg/l	N/A	Limits are set in accordance with the <i>Bayou Chauvin Watershed TMDL for Biochemical Oxygen-Demanding Substances and Nutrients</i> .

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

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2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X.

PREVIOUS PERMITS:

LPDES Permit No. LA0039209: Issued: June 1, 2000

Expired: May 31, 2006

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD ₅	10 mg/l	15 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Ammonia-Nitrogen	5 mg/l	10 mg/l	2/month	Grab
Fecal Coliform Colonies	200	400	2/month	Grab

The permit contains pollution prevention language.

XI.

ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates that there are no recent inspections on file for this facility as of October 22, 2006.

B) Compliance and/or Administrative Orders

A review of the files indicates that there are no recent enforcement actions administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning September 1, 2004 through August 31, 2006 has revealed the following violations:

Month	Parameter	DMR Reported Value	Permit Limit
September 2004	TSS, Monthly Avg.	46 mg/l	15 mg/l
	TSS, Weekly Avg.	73 mg/l	23 mg/l
October 2004	TSS, Monthly Avg.	108 mg/l	15 mg/l
	TSS, Weekly Avg.	119.5 mg/l	23 mg/l
November 2004	TSS, Monthly Avg.	41 mg/l	15 mg/l
	TSS, Weekly Avg.	41 mg/l	23 mg/l
December 2004	TSS, Monthly Avg.	64.9 mg/l	15 mg/l
	TSS, Weekly Avg.	63 mg/l	23 mg/l
	Fecal Coliform, Monthly Avg.	238 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	514 col/100 ml	400 col/100 ml

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January 2005	TSS, Monthly Avg.	67.5 mg/l	15 mg/l
	TSS, Monthly Avg.	32.25 mg/l	15 mg/l
	TSS, Weekly Avg.	82 mg/l	23 mg/l
	TSS, Weekly Avg.	36.5 mg/l	23 mg/l
	CBOD ₅ , Monthly Avg.	13.85 mg/l	10 mg/l
	CBOD ₅ , Weekly Avg.	16.3 mg/l	15 mg/l
	Ammonia-Nitrogen, Monthly Avg.	9.57 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	17.1 mg/l	10 mg/l
February 2005	TSS, Monthly Avg.	73.75 mg/l	15 mg/l
	TSS, Weekly Avg.	79 mg/l	23 mg/l
	CBOD ₅ , Monthly Avg.	16.5 mg/l	10 mg/l
	CBOD ₅ , Weekly Avg.	21.9 mg/l	15 mg/l
	Fecal Coliform, Monthly Avg.	758 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	758 col/100 ml	400 col/100 ml
March 2005	CBOD ₅ , Monthly Avg.	11 mg/l	10 mg/l
	Fecal Coliform, Weekly Avg.	2,087 col/100 ml	400 col/100 ml
	TSS, Monthly Avg.	87.25 mg/l	15 mg/l
	TSS, Weekly Avg.	88 mg/l	23 mg/l
April 2005	Fecal Coliform, Monthly Avg.	2,572 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	4,919 col/100 ml	400 col/100 ml
	TSS, Weekly Avg.	57.5 mg/l	23 mg/l
May 2005	Fecal Coliform, Monthly Avg.	740 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	1,083 col/100 ml	400 col/100 ml
	TSS, Monthly Avg.	62.25 mg/l	15 mg/l
	TSS, Weekly Avg.	90.50 mg/l	23 mg/l
June 2005	Fecal Coliform, Monthly Avg.	14,850 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	54,142 col/100 ml	400 col/100 ml
	TSS, Monthly Avg.	37.5 mg/l	15 mg/l
	TSS, Weekly Avg.	42.5 mg.;	23 mg/l
October 2005	Fecal Coliform, Monthly Avg.	493 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	716 col/100 ml	400 col/100 ml
	TSS, Monthly Avg.	25.5 mg/l	15 mg/l
	TSS, Weekly Avg.	30.5 mg/l	23 mg/l
November 2005	Fecal Coliform, Weekly Avg.	565 col/100 ml	400 col/100 ml
	TSS, Monthly Avg.	25.5 mg/l	15 mg/l
	TSS, Weekly Avg.	27 mg/l	23 mg/l
December 2005	TSS, Monthly Avg.	23.25 mg/l	15 mg/l
	TSS, Weekly Avg.	23.5 mg/l	23 mg/l
February 2006	TSS, Monthly Avg.	21.75 mg/l	15 mg/l
	TSS, Weekly Avg.	24 mg/l	23 mg/l
March 2006	TSS, Monthly Avg.	20 mg/l	15 mg/l
April 2006	Ammonia-Nitrogen, Monthly Avg.	9.22 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	11.1 mg/l	10 mg/l
	TSS, Monthly Avg.	25.25 mg/l	15 mg/l
	TSS, Weekly Avg.	26 mg/l	23 mg/l
May 2006	TSS, Monthly Avg.	25.5 mg/l	15 mg/l
	TSS, Weekly Avg.	37.5 mg/l	23 mg/l
June 2006	Ammonia-Nitrogen, Monthly Avg.	6.99 mg/l	5 mg/l
July 2006	Ammonia-Nitrogen, Monthly Avg.	11.31 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	13.1 mg/l	10 mg/l
	pH, Minimum	2.73 su.	6.0 su
	pH, Maximum	3.48 su.	9.0 su
	Fecal Coliform, Monthly Avg.	360 col/100 ml	200 col/100 ml
	Fecal Coliform, Weekly Avg.	2,160 col/ 100 ml	400 col/100 ml

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XII.

ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions. future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.20 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.20 \text{ MGD} \times 10 \text{ mg/l} = 17 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.10 and 0.50 MGD.

Effluent Characteristics

Monitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
CBOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report each year for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

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XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, North Monroe Subdivision Sewerage District #1, North Monroe Subdivision Sewerage District #1, October 10, 2006.